

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (original) A curable rapid prototyping composition comprising:

- (i) one or more aromatic epoxies; and
- (ii) one or more aliphatic epoxies;

wherein said composition, after full cure, has a heat deflection temperature (1.82 MPa) of at least 105°C and an elongation at break of at least 1.5%.

2. (original) The composition of claim 1, wherein said composition comprises two or more aromatic epoxies.

3. (currently amended) The composition according to ~~any one of claims 1-2~~ claim 1, wherein said composition comprises at least 25 wt%, relative to the total weight of the composition, of said one or more aromatic epoxies.

4. (currently amended) The composition according to ~~any one of claims 1-2~~ claim 1, wherein said composition comprises at least 50 wt%, relative to the total weight of the composition, of said one or more aromatic epoxies.

5. (currently amended) The composition according to ~~any one of claims 1-4~~ claim 1, wherein said composition further comprises one or more oxetanes.

6. (original) The composition according to claim 5, wherein said composition comprises 5-40 wt%, relative to the total weight of the composition, of said one or more oxetanes.

7. (currently amended) The composition according to ~~any one of claims 1-6~~ claim 1, wherein said one or more aliphatic epoxies consist essentially of epoxies comprising a cycloaliphatic ring structure.

8. (currently amended) The composition according to ~~any one of claims 1-7~~ claim 1, wherein said one or more aliphatic epoxies include an epoxy comprising two cyclohexene oxide structures.

9. (currently amended) The composition according to ~~any one of claims 1-8~~ claim 1, wherein said composition comprises 5-30 wt% of said one or more aliphatic epoxies.

10. (currently amended) The composition according to ~~any one of claims 1-9~~ claim 1, wherein said composition comprises an epoxy having no more than one epoxy group.

11. (currently amended) The composition according to ~~any one of claims 1-10~~ claim 1, wherein said composition further comprises one or more free radical polymerizable components.

12. (original) The composition of claim 11, wherein said one or more free radical polymerizable components include a component having 5 or 6 (meth)acrylate groups.

13. (currently amended) The composition according to ~~any one of claims 11-12~~ claim 11, wherein said composition comprises 5-25 wt%, relative to the total weight of the composition, of said one or more free radical polymerizable component.

14. (currently amended) The composition according to ~~any one of claims 1-13~~ claim 1, wherein said one or more aromatic epoxies include a phenol epoxy novolac and/or a cresol epoxy novolac.

15. (currently amended) The composition according to ~~any one of claims 1-14~~ claim 1, wherein said one or more aromatic epoxies includes a bisphenol diglycidyl ether.

16. (currently amended) The composition according to ~~any one of claims 1-15~~ claim 1, wherein said composition comprises a (meth)acrylate functional pentaerythritol derivative.

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17. (currently amended) The composition according to ~~any one of claims 1-16~~ claim 1, wherein said composition further comprises a cationic photoinitiator and a free radical photoinitiator.

18. (currently amended) The composition according to ~~any one of claims 1-17~~ claim 1, wherein said composition comprises about 0-4 wt% of hydroxy-functional components that are absent a curable group and are not selected from the group consisting of photoinitiators.

19. (currently amended) The composition according to ~~any one of claims 1-18~~ claim 1, wherein said heat deflection temperature is at least 115°C.

20. (currently amended) The composition according to ~~any one of claims 1-18~~ claim 1, wherein said heat deflection temperature is at least 125°C.

21. (currently amended) The composition according to ~~any one of claims 1-20~~ claim 1, wherein said elongation to break is at least 2%.

22. (currently amended) The composition according to ~~any one of claims 1-20~~ claim 1, wherein said elongation to break is at least 3%.

23. (currently amended) The composition according to ~~any one of claims 1-22~~ claim 1, wherein said composition has an E10 cure speed of less than 80 mJ/cm².

24. (currently amended) The composition according to ~~any one of claims 1-23~~ claim 1, wherein said composition has a viscosity of less than 750 mPas at 30°C.

25. (currently amended) The composition according to ~~any one of claims 1-24~~ claim 1, wherein said composition, after full cure, has a tensile strength of at least 35 MPa.

26. (currently amended) The composition according to ~~any one of claims~~ claim 1, wherein said composition, after full cure, has a modulus of at least 2000 MPa.

27. (currently amended) The composition according to ~~any one of claims 1-26~~ claim 1, wherein said composition comprises a color-changing dye.

28. (original) A curable composition having an E10 cure speed of less than 80 mJ/cm² and, after cure by radiation and heat, a heat deflection temperature (1.82 MPa) of at least 125°C and an elongation at break of at least 2.5%.

29. (currently amended) The composition according to ~~any one of claims 1-28~~ claim 1, wherein said composition comprises, relative to the total weight of the composition, about 0 wt% filler.

30. (currently amended) A rapid prototyping process comprising:

(1) coating a layer of a composition according to ~~any one of claims 1-29~~ claim 1 onto a surface;

(2) exposing said layer imagewise to actinic radiation to form an imaged cross-section;

(3) coating a layer of said composition according to ~~any one of claims 1-29~~ claim 1 onto the previously exposed imaged cross-section;

(4) exposing said layer from step (3) imagewise to actinic radiation to form an additional imaged cross-section;

(5) repeating steps (3) and (4) a sufficient number of times to form a three-dimensional article.

31. (original) An article obtainable by the process of claim 30.

32. (original) Use of a curable rapid prototyping composition comprising one or more aromatic epoxies, one or more aliphatic epoxies for making a three dimensional article, whereby the article has a heat deflection temperature (at 1.82 MPa) of at least 105°C and an elongation at break of at least 1.5%.

33. (original) Use according to claim 32, whereby has a heat deflection temperature (1.82 MPa) of at least 125 °C.

34. (currently amended) Use according to claims 32 ~~or 33~~, wherein the article has an elongation at break of at least 2.5%.